

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method comprising:

capturing an intensity at a location on a surface in a single pixel of an image sensing array (ISA); and

converting the intensity into a measurement of distance to the location relative to a reference point independently of data from other pixels of the ISA and independent of time of flight of light reflected from the location to the single pixel; and

comparing a plurality of captures of the intensity at the location under different conditions to compensate for non-homogeneous environments or surfaces.

2. (Original) The method of claim 1 wherein the ISA is a linear image sensor.

3. (Original) The method of claim 2 wherein the linear image sensor is one of a linear charge coupled device (CCD) and a photo diode array.

4. (Cancelled)

5. (Currently Amended) ~~The~~ A method of claim 1 further comprising:

capturing an intensity at a location on a surface in a single pixel of an image sensing array (ISA);

converting the intensity into a measurement of distance to the location relative to a reference point independently of data from other pixels of the ISA and independent of time of flight of light reflected from the location to the single pixel; and

comparing a plurality of captures of the intensity at the location at different points in time to compensate for non-homogeneous environments or surfaces.

6. (Currently Amended) A method comprising:

capturing an intensity at a location on a surface in an elementary group of pixels on an image sensing array (ISA) without regard to intensity distribution within the group; ~~and~~ converting the intensity into a measurement of distance to the location independently of data from other pixels on the ISA and independently of time of flight of light reflected from the location to the elementary group of pixels; ~~and~~

comparing a plurality of captures of the intensity at the location at different points in time to compensate for non-homogeneous environments or surfaces.

7. (Original) The method of claim 6 wherein the ISA is a linear image sensor.
8. (Original) The method of claim 7 wherein the linear image sensor is one of a linear charge coupled device (CCD) and a photo diode array.
9. (Currently Amended) ~~The~~ A method of claim 6 further comprising:
capturing an intensity at a location on a surface in an elementary group of pixels on an image sensing array (ISA) without regard to intensity distribution within the group;
converting the intensity into a measurement of distance to the location independently of data from other pixels on the ISA and independently of time of flight of light reflected from the location to the elementary group of pixels; and
comparing a plurality of captures of the intensity at the location under different conditions to compensate for non-homogeneous environments or surfaces.
10. (Cancelled)
11. (Currently Amended) A method comprising:
capturing a spectral energy distribution returned from a location on a surface in a single pixel of an ISA; ~~and~~
converting the spectral energy distribution into a measurement of distance to the location relative to a reference point independently of data from other pixels of the ISA and independent of time of flight of light reflected from the location to the single pixel; ~~and~~

comparing a plurality of captures of the spectral energy distribution at the location at different points in time to compensate for non-homogeneous environments or surfaces.

12. (Currently Amended) A method comprising:

altering one of a spatial and optical relationship between an image sensing array (ISA) and a surface;

observing a variation of an electrical signal at a single pixel on the ISA responsive to the alteration; and

converting the variation to a measure of distance to a location on the surface relative to a reference point, independently of data from other pixels of the ISA and independent of time of flight of light reflected from the location to the single pixel.; and

comparing a plurality of captures of the electrical signal at the single pixel corresponding to the location on the surface at different points in time to compensate for non-homogeneous environments or surfaces.

13. (Currently Amended) A method comprising:

altering one of a spatial and optical relationship between an image sensing array (ISA) and a surface;

observing a variation of an electrical signal at an elementary group of pixels on the ISA without regard to variations in electrical signals within the group responsive to the alteration; and

converting the variation to a measure of distance to a location on the surface relative to a reference point, independently of data from other pixels of the ISA and independent of time of flight of light reflected from the location to the elementary group of pixels.; and

comparing a plurality of captures of the electrical signal at the elementary group of pixels corresponding to the location on the surface under different conditions to compensate for non-homogeneous environments or surfaces.

14. (Currently Amended) A method comprising:

capturing an intensity at a location on a surface in a single pixel of a linear image sensing array (ISA); and

converting the intensity into a measurement of distance to the location relative to a reference point independently of data from other pixels of the linear ISA; and

comparing a plurality of captures of the intensity at the location under different conditions to compensate for non-homogeneous environments or surfaces.